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Remarks

This application has been reviewed in light of the Office Action of January 31, 2006. Claims 1-26 are pending. Claims 3, 5, 7, 9, and 10 are withdrawn from consideration, and claims 1, 3, 4, 6, 8, and 11-26 are rejected. In response, the following remarks are submitted.

Applicant has three requests:

1. There is stated no prior art rejection of claims 13 and 21, and no rejection at all of claim 21. Although these claims are mentioned in the explanation of the rejection of para. 17, 24, and 30, they are not included in the statement of the rejection set forth in para. 9, as is required by MPEP 707.07 and particularly MPEP 707.07(d), most particularly the second sentence of MPEP 707.07(d). Para. 30 references para. 15 and para. 22 of the previous Office Action, but as pointed out in the second paragraph under Remarks of the Amendment filed in response to the Office action of June 28, 2005, claims 13 and 21 were not included in a statement of a rejection in that Office Action either. Applicant is only asking that the clear instructions on formatting statements of rejection be followed. Applicant's past experience has been that when this type of mistake is pointed out it is corrected in the next Office Action, and does not understand why that has not been done here. Unless the statement of the rejection is modified, the finality of the rejection is withdrawn, and a new nonfinal rejection of these claims is made, on appeal Applicant will be forced to treat these claims as not rejected on any grounds of prior art because they are not addressed in the first sentence of any of the prior art rejections.

2. Applicant asks that the Examiner withdraw the restriction as to claims 3, 5, 7, 9, and 10, because these claims have effectively been examined. Claim 3 recites that the hot region is a structural portion of the aircraft, and the rejections based on Herlik, Loucks, MacDonald and Space Shuttle all permit structural portions of the aircraft to be the hot region. Claim 5 provides that the source of the obscuring agent comprise a supply of the obscuring agent carried on board the aircraft, and the rejections based on Herlik, Loucks, MacDonald, and possibly Space Shuttle all argue that a supply of an obscurant is carried on board the aircraft. Claim 7 provides the source of the obscuring agent comprising a portion of the exhaust gas of a gas generating engine on the aircraft, and the rejection based on Space Shuttle argues this point in the sentence bridging pages 7-8 of the Office Action. Claim 9 recites providing carbon dioxide gas as the obscuring agent, and claim 10 recites providing water vapor as the obscuring agent. That is

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exactly what is said in relation to the rejection based on MacDonald at page 6, line 9 of the Office Action.

3. Applicant asks that the examiner determine at this time whether the case will be withdrawn from appeal to fix the problems with the case after Applicant files its appeal brief, and inform Applicant if that will be done so that Applicant may request PTO management to see that the problems are fixed now rather than after Applicant has prepared the appeal brief.

Applicant makes these three requests because the PTO is highly concerned with improving the efficiency of the examination process for itself and applicants, at least in its public statements. Regarding the first request, the Board of Appeals is going to remand this case back for a correct statement of the rejections unless the problem is fixed now, which will hinder the efficiency of the examination process. As to the second request, to restrict these claims at this time, when their substance has effectively been examined, will hinder the efficiency of examination. Why not include them in the examination with the other claims, and, one way or the other, their patentability will be resolved with the other claims in the appeal? As to the third request, the efficiency of the examination process and the resolution of this case will be hindered if Applicant takes the time to prepare an appeal brief, just to have the case withdrawn from appeal. Months of time will be lost, and both the Applicant and the PTO will be put to extra work.

**Ground 1. Claims 1, 2, 4, 6, 8, and 11-16 are rejected under 35 USC 112, first paragraph, as failing to comply with the written description requirement.**

**Ground 2. Claims 1, 2, 4, 6, 8, and 11-16 are rejected under 35 USC 112, first paragraph, as failing to comply with the enablement requirement.**

Applicant traverses both of these rejections.

The explanation of the rejection refers to two portions of claim 1: the limitation that the aircraft be "provided in flight" and the limitation that an external viewing location be determined based on a "greatest threat".

The examiner states that it is his position that "the original specification did not

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describe such a procedure and is, therefore, new matter. Applicant traverses this position.

As to the "provided in flight" limitation, the examiner is referred to the following locations as exemplary of the disclosure of this limitation: para. [0003] and [0004] of Background; para. [0007], first sentence; para. [0024], particularly second sentence stating "The aircraft 30 in flight is provided, step 20."; para. [0033], first sentence.

As to the "greatest threat" limitation, the examiner is referred to the following locations as exemplary of the disclosure of this limitation: para. [0013], particularly third sentence stating "It is important to concentrate the obscuring agent in the lines of sight from the source of the infrared energy on the aircraft to the most-probable external viewing locations characterizing the areas of the greatest threat..."; para. [0015]; para. [0033].

**Ground 3. Claims 1, 2, 4, 6, 14, 15, 16, 22, 23, 24, and 26 are rejected under 35 USC 102 as anticipated by Herlik US Patent 5,549,259. Applicant traverses this ground of rejection.**

The following principle of law applies to sec. 102 rejections. MPEP 2131 provides: "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. The identical invention must be shown in as complete detail as is contained in the ... claim. The elements must be arranged as required by the claim..." [citations omitted] This is in accord with the decisions of the courts. Anticipation under section 102 requires 'the presence in a single prior art disclosure of all elements of a claimed invention arranged as in that claim.' Carella v. Starlight Archery, 231 USPQ 644, 646 (Fed. Cir., 1986), quoting Panduit Corporation v. Dennison Manufacturing Corp., 227 USPQ 337, 350 (Fed. Cir., 1985)

Thus, identifying a single element of the claim which is not disclosed in the reference is sufficient to overcome a Sec. 102 rejection.

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**Claim 1** recites in part:

**"determining an external viewing location that is associated with a greatest threat of an attack on the aircraft"**

Herlik discloses a method and structure for aerial fire fighting. It does not deal with threats to an aircraft, and accordingly there is no disclosure of "determining" as recited above.

The position of the explanation of the rejection that a fire can be considered an attack on an aircraft, though novel and creative, is incorrect. In any event, Herlik has no disclosure of "determining an external viewing location that is associated with a greatest threat of an attack on the aircraft", nor does the explanation of the rejection identify any such disclosure in Herlik. The explanation of the rejection argues that "A viewing location is established within the stream of fluid", but there is no reference to a source in Herlik of such a disclosure.

Claims depending from claim 1 contain this same limitation.

The explanation of this sec. 102 rejection, and of the other sec. 102 rejections, reflect a misconception about the nature of the sec. 102 rejection. As quoted above from MPEP 2131, a claim is anticipated only if each and every element as set forth in the claim is found in a single prior art reference. The construction of a sec. 102 rejection is not an invitation to speculate in an attempt to create disclosure that is not found in the reference, to create a hindsight reconstruction of the present claims. The arguments about fire being an "attack" and that a viewing location could be established in the stream of fluid are not disclosures found in the reference. They are speculations made in a hindsight attempt to force a Procrustean interpretation on an unrelated disclosure. In any event, there is no determination of an external viewing location that is associated with a greatest threat of an attack on the aircraft, a recited claim limitation. The explanation of a sec. 102 rejection must point to the location in the reference of every disclosed limitation of the claim under consideration, and that has not been done

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here for any of the grounds of rejection.

Claim 22 recites in part:

"wherein the dispensing location is on an engine nacelle of the aircraft forward of an aft end of an engine contained within the nacelle, or on a wing of the aircraft, or on a fuselage of the aircraft just ahead of an auxiliary power unit."

The dispensing location of the aerial firefighting fluid from the aircraft in Herlik is from the very aft end of the fuselage, at locations indicated as 9 in Figure 3 (col. 8, lines 41-44). It is not from any location set forth in the above-quoted recitation from claim 22. This limitation is not even addressed in the explanation of the rejection.

Claims depending from claim 22 contain this same limitation.

**Ground 4. Claims 1, 2, 4, 6, 14, 15, 22, 23, 24, and 26 are rejected under 35 USC 102 as anticipated by Loucks US Patent 5,269,132. Applicant traverses this ground of rejection.**

Claim 1 recites in part:

"determining an external viewing location that is associated with a greatest threat of an attack on the aircraft"

Loucks has no such disclosure, nor does the explanation of the rejection assert that Loucks has such a disclosure or point out a location in Loucks where there is such a disclosure.

Claims depending from claim 1 contain this same limitation.

Claim 22 recites in part:

"ejecting the obscuring agent from a dispensing location so as to flow between the hot region and the external viewing location but not to cool

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the hot region"

Loucks discloses that its approach cools the hot region, see col. 2, lines 16-27. The whole point of the approach of Loucks is to cool the hot region to reduce its emissivity.

Claim 22 further recites in part:

"the dispensing location is on an engine nacelle of the aircraft forward of an aft end of an engine contained within the nacelle, or on a wing of the aircraft, or on a fuselage of the aircraft just ahead of an auxiliary power unit."

Loucks has no such disclosure. While the engine of Loucks may have a surrounding nacelle that is not pictured in Loucks, there is no disclosure in Loucks that the dispensing location is on the engine nacelle. Figure 3 of Loucks is of the engine that is contained in the nacelle, and the structures pictured in Figures 1-2 of Loucks are inside the engine of Figure 3. The dispensing locations of Loucks are within the engine that is contained within a nacelle, see col. 2, line 5-col. 3, line 55 of Loucks. The above-quoted language of claim 22 makes it clear that the dispensing location is on the nacelle that contains the engine, not on the engine itself.

Claims depending from claim 22 contain these same limitations.

**Ground 5. Claims 1, 2, 4, 6, 11, 14, 16, 22, 23, 24, and 26 are rejected under 35 USC 102 over US Patent 4,979,571 to MacDonald. Applicant traverses this ground of rejection.**

Claim 1 recites in part:

"providing the aircraft in flight having an externally viewable hot region associated therewith, wherein the hot region has a temperature

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greater than 150°C;"

MacDonald has no such disclosure, nor does the explanation of the rejection point out any location in MacDonald having such a disclosure, nor does the explanation of the rejection point out any such disclosure.

Claim 1 further recites in part:

"determining an external viewing location that is associated with a greatest threat of an attack on the aircraft"

MacDonald depicts in Figure 4 a firefighting or chemical-spills control helicopter. A foam mixture is sprayed out of the front-mounted and generally forward-facing nozzle 66. There is no action taken to determine an external viewing location that is associated with a greatest threat of an attack on the aircraft. The reference in the explanation of the rejection to "a viewing location 122" is incorrect. In MacDonald, numeral 122 refers to "fire target area 122" (col. 8, line 54), and must be referred to in that manner. There is no disclosure in MacDonald that there is a determination that fire target area 122 is associated with a greatest threat of an attack on the helicopter.

Claims depending from claim 1 contain this same limitation.

Claim 22 recites in part:

"providing the aircraft in flight having an externally viewable hot region associated therewith, wherein the hot region has a temperature greater than 150°C;"

MacDonald has no such disclosure, nor does the explanation of the rejection point out any location in MacDonald having such a disclosure, nor does the explanation of the rejection point out any such disclosure.

Claim 22 further recites in part:

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**"the dispensing location is on an engine nacelle of the aircraft forward of an aft end of an engine contained within the nacelle, or on a wing of the aircraft, or on a fuselage of the aircraft just ahead of an auxiliary power unit"**

The dispensing location of the foam from the helicopter in MacDonald is from the forward-mounted and forward-facing nozzle 66, see Figure 4 and the disclosure of MacDonald. It is not from any location set forth in the above-quoted recitation from claim 22.

Claims depending from claim 22 contain this same limitation.

**Claims 1, 2, 4, 6, 8, 11, 12, 14, 15, 17, 18, 19, 20, 22, 23, 24, and 25 are rejected under 35 USC 102 as anticipated by "Space Shuttle" together with the cited supporting documents to establish inherent design features. Applicant traverses this ground of rejection.**

Claim 1 recites in part:

**"determining an external viewing location that is associated with a greatest threat of an attack on the aircraft;"**

Space Shuttle discloses an earth-launched space vehicle. It does not deal with threats of an attack to the space shuttle, and accordingly there is no disclosure of the "determining" step as recited above. The explanation of the rejection does not address this limitation, and does not point out in any of the supporting documents where there is a disclosure of this limitation.

Claim 1 also recites in part:

**"ejecting the obscuring agent from a dispensing location on the aircraft so as to flow between the hot region and the external viewing location, wherein the obscuring agent has a temperature of less than that of the hot**



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region."

None of the references disclose this limitation, nor has the explanation of the rejection pointed out where the references disclose this limitation..

Claims depending from claim 1 contain these same limitations.

Applicant appreciates the examiner's humor in the explanation of the rejection. Applicant cannot resist observing that a person standing under the engines (Office Action, page 7, last two lines on page) would not view the plume created by the engines for very long.

Applicant notes that in the discussion of the various dependent claims, there is no reference to the source of the disclosure in any case. For example, regarding claim 13 (and claim 21 depending from claim 17), the article "Solid Rocket Booster" does not disclose the claim limitation, "providing solid metal particles in the obscuring agent". Aluminum may be present, but it is likely in a vaporous form. In any event, the reference must disclose that the aluminum (or other metal) is present in the form of particles. There is no such disclosure, nor does the explanation of the rejection point to any such disclosure in the references. The explanation of the rejections of many of the other dependent claims suffer from the same problem.

Claim 17 recites in part:

"ejecting the obscuring agent from a dispensing location on the aircraft so as to flow between the hot region and the external viewing location, wherein the obscuring agent has a temperature of less than that of the hot region"

None of the references discussing the space shuttle has any such disclosure, nor does the explanation of the rejection point out any such disclosure in the references. In fact, the plume is the exhaust that is the mixture of water vapor produced in the combustion of hydrogen and oxygen in the SSMEs (space shuttle main engines), and there is no disclosure that the water vapor is at a temperature less than that of the hot

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region.

Claim 17 further recites in part:

"the dispensing location is on an engine nacelle of the aircraft forward of an aft end of an engine contained within the nacelle, or on a wing of the aircraft".

The dispensing location of the exhaust from the space shuttle engines is from the aft end of the aft-mounted main engines or from the aft end of the side-mounted SRBs. It is not from any location set forth in the above-quoted recitation from claim 22.

Claims depending from claim 17 contain this same limitation.

Claim 22 recites in part:

"ejecting the obscuring agent from a dispensing location so as to flow between the hot region and the external viewing location but not to cool the hot region"

The water vapor formed in the combustion of hydrogen and oxygen does in fact cool the hot region because it is formed in the hot region. None of the references discloses the recited negative limitation "flow between the hot region and the external viewing location but not to cool the hot region". The explanation of the rejection does not even mention this limitation.

Claim 22 further recites in part:

"the dispensing location is on an engine nacelle of the aircraft forward of an aft end of an engine contained within the nacelle, or on a wing of the aircraft, or on a fuselage of the aircraft just ahead of an auxiliary power unit".

The dispensing location of the exhaust from the space shuttle engines is from the

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aft end of the aft-mounted main engines or from the aft end of the side-mounted SRBs. It is not from any location set forth in the above-quoted recitation from claim 22.

Claims depending from claim 22 contain this same limitation.

All of the claims recite "ejecting the obscuring agent". In the various photos presented on pages 10-13 of the Office Action, only the figure on page 13 is sufficiently close to view the pertinent parts and exhausts of the space shuttle. In viewing this photo, as well as the other photos, there is no reason to believe that anything is obscured. There is no way to tell whether the exhaust of the SSMEs is obscured, because the hydrogen/oxygen combination burns invisibly, at least in the visible wavelengths. The evidence of record suggests that the exhaust of the SRBs is not obscured, at least in the visible wavelengths in which the photos are taken. In the photo on page 13, the exhaust of the right-hand SRB appears to be exactly the same as the exhaust of the left-hand SRB, even though the exhaust of the right-hand SRB is viewed through the exhaust of the SSMEs and the exhaust of the left-hand SRB is not viewed through the exhaust of the SSMEs. Consequently, there is no evidence of record supporting the position that there is any obscuring agent being ejected by the space shuttle. Certainly the references relied upon make no disclosure of such an obscuration, and the photos suggest to the contrary. If the rejection is maintained, proof of the assertion of "ejecting the obscuration agent" must be made of record.

#### Reply to "Response to Arguments"

It is suggested that "attacking the aircraft..." be recited. However, an actual attack is not required in regard to the invention of claim 1. Only determination of the external viewing location providing the "greatest threat of an attack on the aircraft" is required, and ejecting the obscuring agent between the hot region and the external viewing location whether or not there is an actual attack.

The amendment to claim 1 does not "merely require an external viewing location which is inherent in each prior art reference". MPEP 2112-2113 sets forth the law on

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inherency. Inherency is not to be taken lightly and not to be asserted unless there is good evidence to suggest that the asserted property or characteristic is necessarily present in the teachings of the prior art reference. The concept of inherency is not provided as a way to fill in the gaps in missing disclosure or teachings based upon speculation, unless the asserted property or characteristic may be shown to be necessarily present by objective evidence. Instead, "inherency" is used when every aspect of the disclosure of a reference and the claimed subject matter are otherwise exactly the same, then it may be inferred that some property or characteristic further recited in the claim must necessarily be present in the art reference. MPEP 2112 provides "The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. In re Rijnckart, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993); In re Oelrich, 666 F.2d 578, 581-82, 212 USPQ 323, 326 (CCPA 1981). "To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.'" In re Robertson, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) (citations omitted) "In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." Ex parte Levy, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990)"

In the present case, none of the references discloses a "viewing location". The explanations of the rejections have sought to create a "viewing location" purely in hindsight as a way of creating a hindsight rejection of the claims. That is, the rejections seek to use Applicant's own disclosure against the claims. In relying on the doctrine of inherency, the explanation of the rejection must demonstrate that each location that is argued to be a "viewing location" is necessarily a viewing location. As noted in the preceding paragraph, "To establish inherency, the extrinsic evidence 'must make clear

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that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient."

For example in regard to claim 1, it must be demonstrated that, somehow, someone necessarily determines an external viewing location that is associated with a greatest threat of an attack on the aircraft, and then ejects the obscuring agent from a dispensing location on the aircraft so as to flow between the hot region and the external viewing location. None of the references make such a disclosure.

Regarding the suggestion of a positive recitation of structure in respect to "providing a transport aircraft", Applicant will certainly consider doing so in response to the next nonfinal action, when the proper statement of the rejection of claims 13 and 21 is made, if that will facilitate moving the application to issue. However, the existing recitation is a positive recitation that meets the requirement for claim construction. If it did not, there would be a sec. 112 rejection on this point.

Applicant asks that the examiner reconsider and withdraw the rejections and allow the case to issue.

Respectfully submitted,



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